

# PARDUS – Increase the Performance of Your Cutting Tools by Edge Preparation and Improved Surface Roughness

“...the only drag finishing system that has an efficient solution for tool holding ...”

- Machine especially designed for cutting tools
- Independent speed of table and tool holders
- High productivity
- Robust design for 24/7 production
- Various medias and processes for honing and polishing



PARDUS  
6HD 2S

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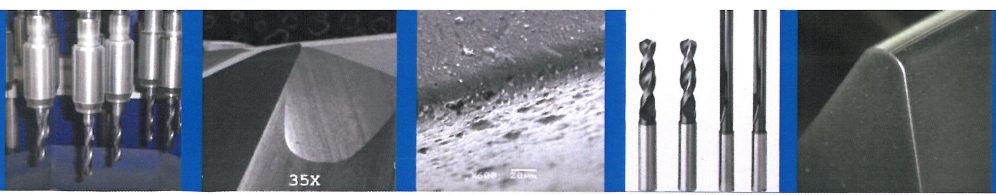
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## Drag Finishing Technology

Drag finishing is the most efficient and most reproducible method to put a defined hone on cutting edges of high performance tools and to achieve a highly polished surface after PVD coating.

### Why Use Drag Finishing before PVD Coating?

The grinding process leaves a sharp, but often damaged, cutting edge. PVD coatings on the sharp edges lead to peel-off and micro-chipping during the initial phase of machining. By putting a well-defined radius on the cutting edge, these problems are avoided.

Additional advantages are

- Removes cobalt leaching to achieve better adhesion of PVD coatings.
- Deburs in the case of HSS tools.
- Provides the most cost-effective and most reliable method to produce honed cutting edges.

### Why Polishing after PVD Coating?

- Drag finishing drastically improves the surface roughness by removing the droplets. Such smoother/polished surfaces enable better chip formation and chip flow.
- Drag finishing can partially remove the coating. This increases the number of possible regrinds per tool by up to 80%.

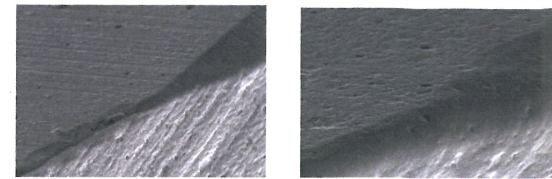
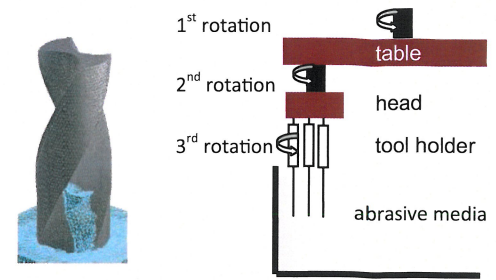
### Robust Production Machines

- Pardus machines fit perfectly in any production flow.
- All functions are PLC controlled with touch screen.
- Allows storage of up to 99 programs.
- Independent speeds (table and heads).
- Different duration forwards and backwards can be set to produce different edge geometries. It also enables the selection of the area to be polished.
- The depth in the media is controlled by a laser sensor.
- Special tool holders (QTH) for rapid tool change are available.
- Small footprint, quiet, little dust.

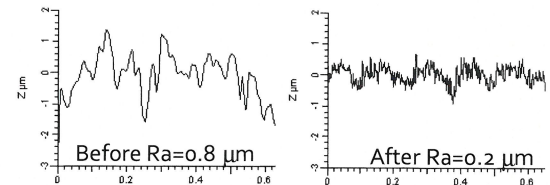
### Applications

- Drag finishing before PVD coating produces a smooth and robust cutting edge, which improves the performance and reproducibility for all types of machining (drilling, milling, tapping, turning, hobbing and shaping).
- Drag finishing after PVD coating increases the cutting performance and the surface quality of the machined part.

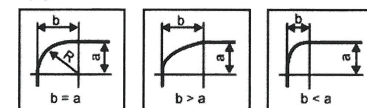
⇒ Typical performance improvements are in the range of 50-100%.



Cutting edge before and after edge preparation



QTH – for high throughput



Machines are available in different sizes and with options for high volume production. We manufacture customized solutions.

PD2i has service and spare parts centers in Europe, Asia and Americas.